



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Patent Application of:

Paul Lawheed

Serial No.: 10/616,200

Filed: 9 July 2003

For: IMPROVED FLAT PLATE PANEL SOLAR  
ELECTRIC GENERATORS AND METHODS

Docket: 8639

Art Unit:

Examiner:

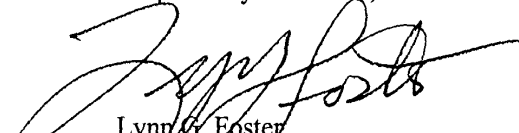
**RELATED ART/INFORMATION DISCLOSURE STATEMENT**

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

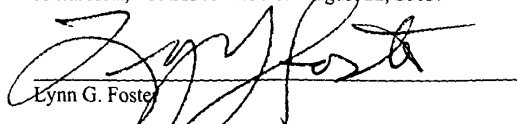
Enclosed are the PTO 1449 and 892 Forms from the parent applications together with an additional Form 1449, constituting the applicant's Related Art/Information Disclosure Statement.

Respectfully submitted,

  
Lynn G. Foster  
Attorney for Applicant

602 East 300 South  
Salt Lake City, UT 84102  
(801) 364-5633

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 22, 2003.

  
Lynn G. Foster

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	
	)	
PAUL LAWHEED	)	Docket: 8286
	)	
Serial No.: 09/867,196	)	Art Unit:
	)	
Filed: May 29, 2001	)	Examiner:
	)	
	)	
For: CONVERSION OF SOLAR ENERGY	)	
	)	

**RELATED ART/INFORMATION DISCLOSURE STATEMENT**

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

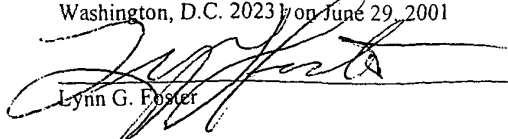
Sir:

The Applicant does not believe that the related art set forth on the accompanying PTO-1449 forms is particularly germane and certainly such does not anticipate or make obvious the invention of the above-identified application.

To the best of the recollection of the Applicant and the undersigned, neither is aware of any further patent or publication which might be deemed relevant to the claimed subject matter.

Furthermore, it should also be made of record that no exhaustive effort has been undertaken to locate, either on the part of the Applicant or the undersigned, any patent or publication which might in the past have been familiar to the Applicant or the undersigned and which may be contained in the files and/or among records concerning which neither the Applicant nor the undersigned has present recollection.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on June 29, 2001

  
Lynn G. Foster

Restated, so far as the undersigned and the Applicant is able to presently recall, neither is aware of any related art patents or publications believed to be germane in any way to the above-identified application other than the patents mentioned below and said patents are believed to be only of general interest.

Solar energy is freely and daily available. It is a clean, non-polluting source of energy. Providing a reliable, long term, cost effective, efficient way of using sunlight to obtain electrical and thermal power has long been an unsolved problem, until the present invention.

It has been proposed that flat panel solar converters be used to convert direct sunlight into thermal or electrical energy.

Pedestal supported flat panels using direct sunlight to generate electricity were part of the Solar One project.

A circular, but concave reflector mounted on a single column or pedestal has been proposed. This approach was used on the Soleras water desalination project in Saudi Arabia and on the Solar Two project in Dagget, California.

Fixed position concave reflectors placed in an array and positioned in side by side rows on an incline have been proposed. See U.S. Patent No. 4,202,322. Such an installation was made at the Federal Correctional Institution at Phoenix, Arizona.

Tilttable elongated concave reflector assemblies have been utilized, such as the one at Barstow, California, owned by FPL Energy SEGS VIII and IX.

Solar facilities, using a different technology, also exist at the Glendale Airport in Arizona and at the Plataforma Solar Americas project in Spain.

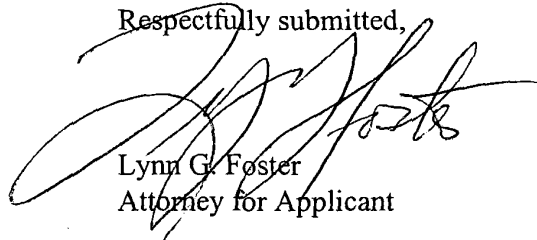
Solar Systems comprising bidirectionally controlled Fresnel lens and solar cell assemblies, utilizing direct sunlight, have been proposed. See, U.S. Patent No. 4,649,899, for example. Also

see, U.S. Patent No. 4,245,153. Optical detectors for dual axis tracking of the sun are known. Even less relevant are U.S. 4,439,020 and 4,238,246.

The above-identified proposals and installations have failed to provide reliable, low cost, efficient, variable capacity systems by which solar energy is converted to thermal and/or electrical energy. A long felt need has existed for energy conversion plants which are reliable, efficient, cost effective and size variable to meet both low and high capacity demands for thermal and electrical energy.

While the Applicant and the undersigned attorney believe PTO-1449 patents, publications and prior solar installations are of general interest only, it is respectfully requested the Examiner make his or her own independent search and review to determine for himself or herself the extent to which the cited publications and patents and any others located in the search by the Examiner, as well as the prior solar installations, are deemed to be relevant, if at all, to the presently claimed invention of the above-identified application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Lynn G. Foster', is written over the typed name and title.

Lynn G. Foster  
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Form PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 8286

SERIAL NO. 09/867,196

LIST OF ART CITED BY APPLICANT  
(Use several sheets if necessary)

APPLICANT: Paul Lawheed

FILING DATE: May 29, 2001

GROUP

## U.S. PATENT DOCUMENTS

*Examiner Initial		Document Number	Date	Name	Class	Subclasses	Filing Date If Appropriate
	AA	4,439,020	3/27/84	Saburo Maruko	350	443	2/9/82
	AB	4,238,246	12/9/80	Pierre Genequand	136	248	6/4/79
	AC	4,245,153	1/13/81	David R. Porter	250	203	3/9/79
	AD	4,202,322	5/13/80	Manuel M. Delgado et al.	126	425	5/11/77
	AE	4,649,899	3/17/87	Roy A. Moore	126	425	7/24/85
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclasses	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

## OTHER RELATED ART (including Author, Title, Date, Pertinent Pages, Etc.)

	1		Concentrating Solar Power Research; National Renewable Energy Laboratory; 12/98; FS24863
			Photovoltaic Research, National Renewable Energy Laboratory, 12/98, FS24864
	2		
	3		

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>Notice of References Cited</b>	Application/Control No. 09/867,196	Applicant(s)/Patent Under Reexamination LAWHEED, PAUL	
	Examiner Alan Diamond	Art Unit 1753	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-4,000,734 ✓	01-1977	Matlock et al.	126/576
	B	US-4,109,638 ✓	08-1978	Matlock et al.	126/605
	C	US-4,175,391 ✓	11-1979	Baer	60/531
*	D	US-4,202,322	05-1980	Delgado et al.	126/574
	E	US-4,421,104 ✓	12-1983	Adcock	126/600
	F	US-4,559,926 ✓	12-1985	Butler	126/578
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

*Alan Diamond* 5/6/02

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 8639	SERIAL NO. 10/616,200	
<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center; margin-right: 10px;"> OIP E AUG 26 2003 PATENT &amp; TRADEMARK OFFICE </div> <div> LIST OF ART CITED BY APPLICANT  (Use several sheets if necessary) </div> </div>				APPLICANT: Lynn R. Stratford		
				FILING DATE: 22 AUG 2003	GROUP	
U.S. PATENT DOCUMENTS						
*Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
AA						
AB						
AC						
AD						
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AJ						
AK						
FOREIGN PATENT DOCUMENTS						
	Document Number	Date	Country	Class	Subclass	Translation
						Yes    No
AL						
AM						
AN						
AO						
AP						
OTHER RELATED ART (including Author, Title, Date, Pertinent Pages, Etc.)						
Literature	1	/	PV Racking, pages 13 - 15			
Literature	2		3M Solar Optical Products Installation Specification, 1 page, Date Unknown			
Literature	3		ENTECH, 7 pages, Date Unknown			
Literature	4		AMONIX, 5 pages, Date Unknown			
Literature	5		Technology, 3 pages, Date Unknown			
EXAMINER			DATE CONSIDERED			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						